



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Prathyusha K. Salla et al.

Serial No.: 10/723,858

Filed: November 26, 2003

For: METHOD AND SYSTEM FOR  
DETERMINING A PERIOD OF  
INTEREST USING MULTIPLE INPUTS

§ Group Art Unit: 3762

§ Examiner: Manuel, George C.

§ Atty. Docket: GEMS:0236/YOD/RAR  
(132958-1)

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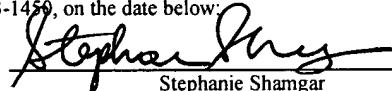
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Stephanie Shamgar



**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

In accordance with the Official Gazette Notice of July 12, 2005, Appellants submit this Pre-Appeal Brief Request for Review. This Request is filed along with a Notice of Appeal.

In the Final Office Action, claims 21-32, 53-64, 67, 71, and 72 were rejected and claims 1-20, 33-52, 65, 66, and 68-70 were withdrawn from consideration. Claims 1-72 remain pending in the present patent application. Applicants respectfully request reconsideration of the pending claims in view of the following remarks.

**Rejections Under 35 U.S.C. § 102**

*Independent Claims 21 and 53*

The Examiner rejected claims 21, 22, 24-32, 53, 54, 56-64, 71 and 72 under 35 U.S.C. § 102(b) as anticipated in view of U.S. Patent No. 5,701,897 (the “Sano reference”). Appellants respectfully traverse this rejection.

In the present case, the rejection is not appropriate because the prior art reference used to reject the claims does not disclose each and every element of the Appellants’ claims. For example, independent claim 21 recites the acts of “acquiring at least one set of electrical data representative of cardiac motion, at least one set of non-electrical data representative of cardiac motion, and one or more sets of data representative of respiratory motion” and “generating a set of multi-input motion data comprising the set of electrical data representative of cardiac motion, the set non-electrical data representative of cardiac motion, and the one or more sets of motion data representative of respiratory motion.” (Emphasis added). Independent claim 53 recites similar subject matter. The present application discusses such respiratory motion at page 2, lines 3-6, line 32 to page 3, line 2, page 6, lines 5-10, page 12, lines 5-10, and elsewhere. The Sano reference does not appear to discuss or disclose the acquisition or use of such data representative of respiratory motion, as presently recited in claims 21 and 53.

Instead the Sano reference discloses measuring the velocities of movement of cardiac muscle (heart or blood vessel wall), without reference to respiratory motion. Sano, col. 1, lines 7-11, col. 2, lines 31-37, col. 8, line 40- col. 9, line 16. Indeed the Appellants have been unable to find any instance where the Sano reference discloses or discusses the lungs, the diaphragm, or respiration in even a general sense. Instead, the Sano reference describes the generation and display of images in which movement and velocity information is portrayed, such as by superimposition on a static image. Sano, col. 2, lines 31-35, line 66 to col. 3, line 2, line 14, lines 22-34, lines 46-48, lines 53-57, col. 11, lines 11-17 and lines 55-64. In responding to this deficiency of the Sano reference, the Examiner states that: “Sano clearly suggests motion data comprising an ultrasonic diagnosis apparatus in which velocities of movement of an organ in motion of an object, such as a cardiac muscle of a heart and blood vessel wall, are obtained and displayed and if necessary, on the

basis of the velocities, other physical values representing conditions of the movement are calculated and displayed. Respiration is a physical value representing the condition of an organ (lung or diaphragm) in motion and exhibiting a velocity of movement.” Final Office Action, p. 3.

The Examiner appears to rely heavily, if not entirely, on the Background section of Sano at col. 1, lines 7-13. However, the Appellants cannot understand how the Examiner has taken this passage as evidence of motion data representative of respiratory motion in addition to motion data representative of cardiac motion, as presently recited in the present claims. There simply does not appear to be any indication in the Sano reference that cardiac and respiratory motion data are acquired or utilized or that the measurement of respiratory data is ever even contemplated by Sano. Indeed, the Examiner’s entire position appears to be that the technique of Sano *could* be utilized to acquire motion data representative of respiration. This is unquestionably insufficient to support a rejection under 35 U.S.C. §102.

Likewise the Sano reference appears to be entirely silent as to “extracting one or more periods of minimal motion” as presently recited in claims 21 and 53. Instead, as noted above, the Sano reference generally appears to be directed toward generation of images in which motion is depicted or portrayed, such as by superimposition on other images. Sano, col. 2, lines 31-35, line 66 to col. 3, line 2, line 14, lines 22-34, lines 46-48, lines 53-57, col. 11, lines 11-17 and lines 55-64. Sano is not directed to, and does not appear to disclose, identifying periods of minimal motion from a set of multi-input motion data comprising a set of electrical and non-electrical data representative of cardiac motion and one or more sets of motion data representative of respiratory motion. In support of this recitation, the Examiner has cited to col. 2, lines 47-52 of the Sano reference. Final Office Action, p. 2. However, this passage is devoid of any mention of periods of minimal motion and instead merely references a “minimum detection construction.” In view of these deficiencies, the Appellants respectfully request that the Examiner be directed to withdraw the present rejections and allow the present claims to proceed to issuance.

*Independent Claim 67*

The Examiner has indicated that independent claim 67 is rejected. Final Office Action, Office Action Summary. No explanation for the basis of the rejection of independent claim 67 has been provided in the Final Office Action or in the preceding Office Action. *See* Final Office Action, Response mailed May 24, 2006, p. 16, Office Action mailed February 24, 2006. In view of the absence of an explanation as to the basis of rejection for independent claim 67, the Appellants have been deprived of the opportunity to formulate any meaningful response and the record is bereft of any discussion as to the allowability or limitations of this claim. Further, the Appellants note that independent claim 67 has one or more elements presented in presumptive means-plus-function form under 35 U.S.C § 112, paragraph 6. As such, independent claim 67 is entitled to examination per M.P.E.P. §§ 2181-2184, which is distinct from the examination provided for the other presently pending independent claims.

*Independent Claim 71*

Independent claim 71 recites, among other things, “one or more sensor-based motion measurement systems configured to measure electrical or non-electrical activity indicative of the motion of the respiratory organ.” As noted above the Sano reference does not appear to discuss or disclose the acquisition of motion of a respiratory organ. Further, the Sano reference does not appear to disclose, nor has the Examiner pointed out, a sensor-based motion measurement system configured to measure motion of a respiratory organ. As such, the rejection of claim 71 is believed to be deficient.

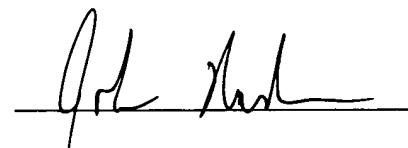
Further, the Sano reference does not appear to disclose data processing circuitry or a workstation configured to extract one or more periods of minimal motion, as noted above. Instead, this subject matter appears to be entirely absent from the Sano reference. In view of these deficiencies, no *prima facie* case of anticipation is believed to exist for independent claim 71.

**Conclusion**

In view of the above remarks, Appellants request withdrawal of the present rejections and allowance of the pending claims.

Respectfully submitted,

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